



RCSI

Safe patient handling techniques: does the theory match the practice?

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Moving and Handling

The aim of safe moving and handling is to apply minimal effort by the healthcare provider so that the patient suffers no discomfort or injury.



Safe Patient Handling & Movement Training Programme

Goals

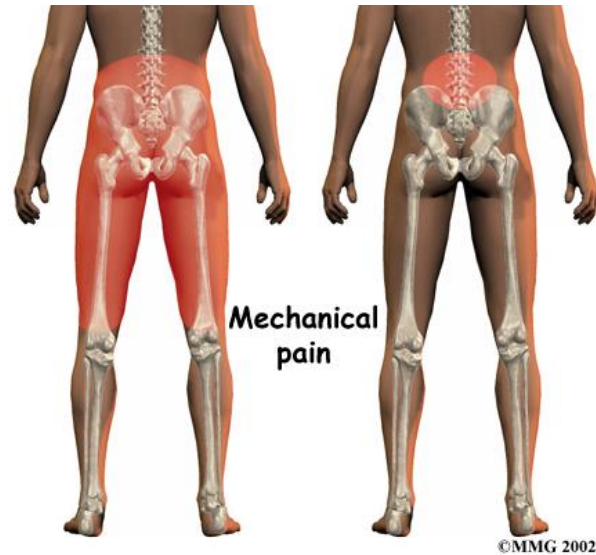
- Provide sufficient understanding and knowledge of manual handling regulations.
- The risks assessment involved and the control measures available.
- Reduce the *incidence and severity* of musculoskeletal injuries.
- Decrease nursing turnover.
- Reduce *costs* from these injuries.
- Create a *safer environment* & improve the *quality of life* for patients/residents.
- Encourage the *reporting* of incidents/injuries.
- Create a *culture of safety* and empower nurses to create safe working environments.

Moving and Handling Teaching Strategy

- Theory
- Discussion
- Practical Demonstrations



What is Lower Back Pain?



- Pain that originates from the spine, muscles, nerves or other structures in the back that can radiate into the lower extremities, such as tingling, burning sensation, dull or sharp ache.
- Causes weakness/imbalance in strength and flexibility in the lower back and abdominal areas.

Lower Back Pain Disorders



Causes of Lower Back Pain

- **Lifting of heavy objects**
- **Prolonged sitting**
- **Injury/accident**
- **Quick movements**

- **Other Causes:**
 - **Muscle spasms**
 - **Decreasing alignment**
 - **Herniated Disc**
 - **Small fractures**
 - **Degenerative Disc Disease (DDD)**

- **Muscle strains/tears**
- **Curvature of spine**



Lower Back Pain Prevalence

- **Back pain is the most common reason for filing workers comp claims**
- **80% of adults will experience LBP.**
- **Most of the time injury to the lower back happens at work.**



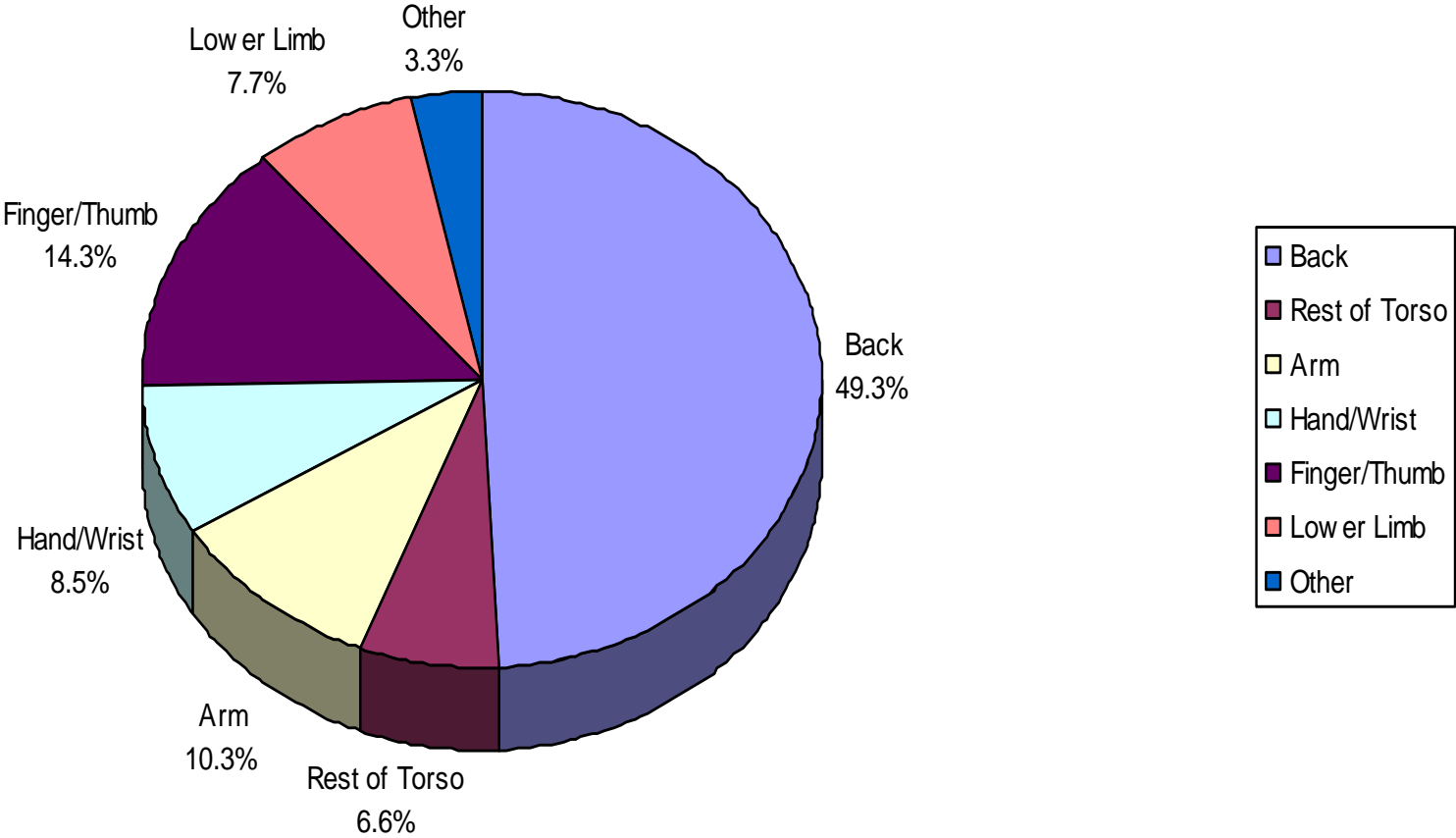
Source: National Institute of Occupational Safety and Health (NIOSH)

Accident Statistics

- **Largest cause of accidents at work**
- **37% Manual Handling**
- **19% Slips, Trips and Falls**
- **12% Other Causes**
- **20% Struck by an Object**
- **7% Falling from Height**
- **5% Machinery**

Sites of injuries caused by handling

From HSE 2005



International Statistics

According to American Nurses Association in 2012:

- **52% of Nurses complain of chronic back pain with a lifetime prevalence up to 80%.**
- **38% report having occupational-related back pain severe enough to require leave from work.**
- **12% of nurses leaving the profession report back pain as a main contributory factor.**
- **20% have reported changing to a different unit, position, or employment because of back pain.**

NHS Statistics

- **58,000 nurses have back injuries**
- **3,600 nurses lost to the NHS each year**
- **£70 million cost of nurse absence**
- **£50 million cost of nurse replacement**

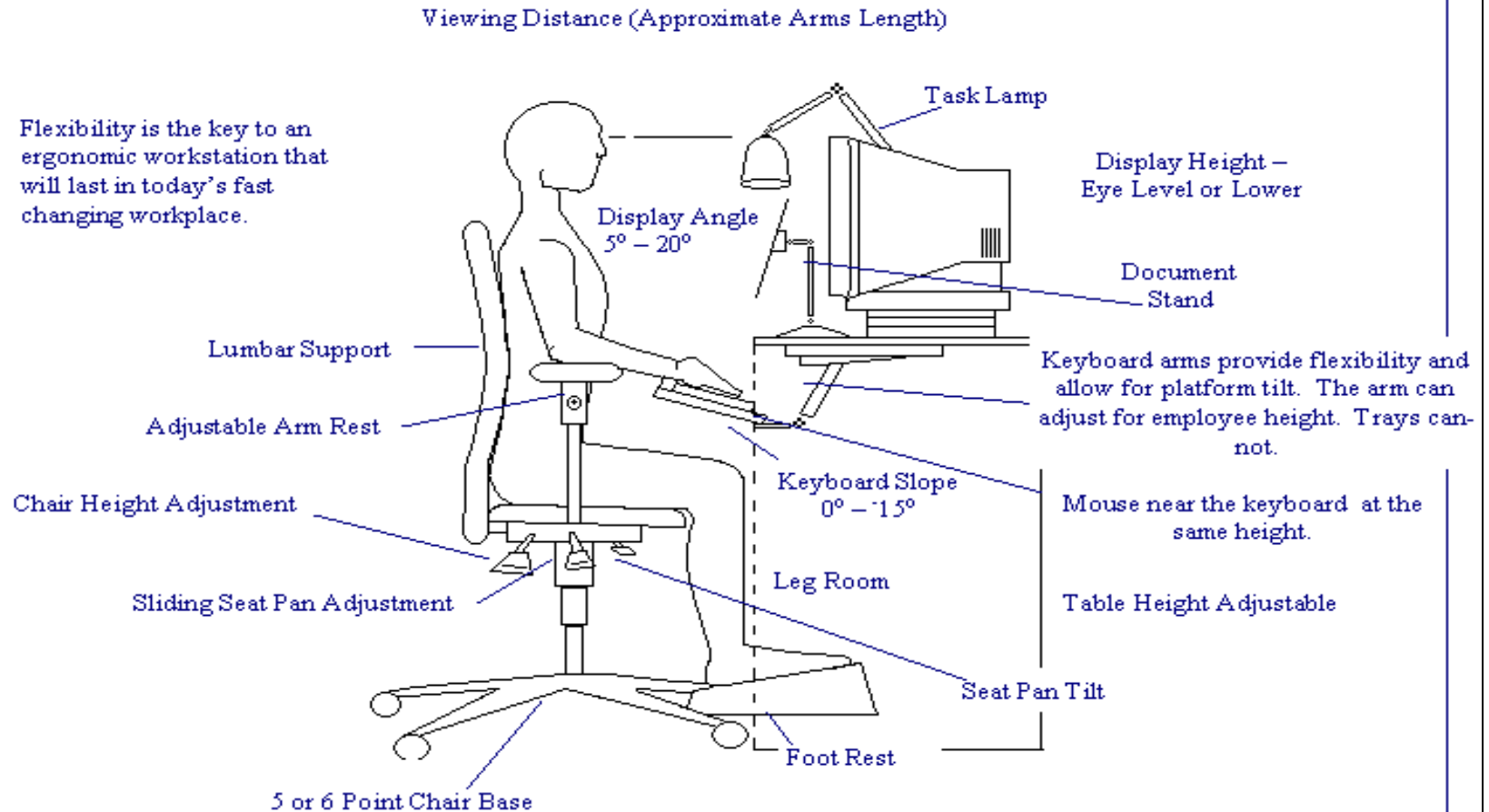
(John ant, 2015)

Lower Back Pain - Risk Factors

- **Heavy manual lifting**
- **Repetitive movement: lifting/twisting**
- **Constant vibration**
- **Poor posture**
- **Continuous work**
- **Poor physical fitness**
- **Low pain threshold**
- **Weak trunk musculature**
- **Smoking**
- **Stressed/depressed**
- **Pregnancy**
- **Arthritis**
- **Obesity**

Computer Workstation

Flexibility is the key to an ergonomic workstation that will last in today's fast changing workplace.



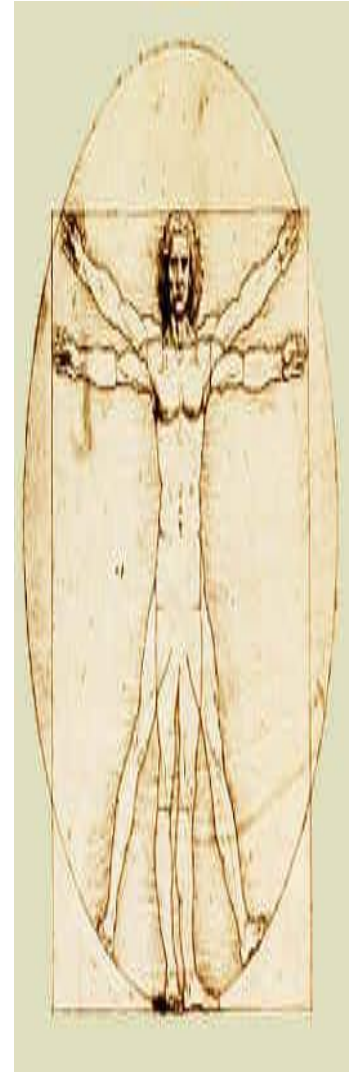
Keep the pedestals (drawer or file units) mobile to avoid interference with employee movement

‘Manual Handling Operations Regulations, 1992 (as amended)’

- Avoid** → Wherever possible, avoiding a hazardous manual handling situation is always preferable.
- Assess** → If avoidance is not possible, making a ‘suitable and sufficient’ assessment of the hazards is the next step.
- Reduce** → By following the Risk Assessment you are reducing the risk of injury to all persons involved.
- ↓
- Training of staff in safer handling techniques, introducing appropriate handling aids and changing work patterns will all help reduce the risk.
- Review** → Risk Assessments should be reviewed when changes occur.

What is Ergonomics?

- The way we interact with our environment at work, play and rest
- Adapting tasks to fit the employee
- One size does not fit all
- Maximizing your health and comfort by using your body in efficient ways
- Self-evaluation of behaviors and postures
- Recognizing signs and symptoms associated with musculoskeletal disorders



‘Controversial Techniques’

Each of the following moves are deemed to be high risk to both the client and the carer. This is supported by the following evidence:

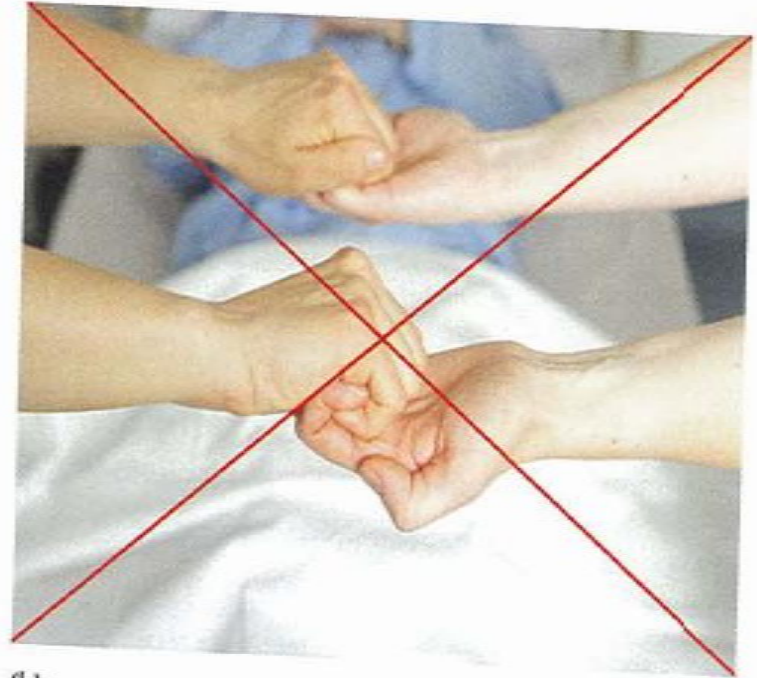
- Research findings in studies which examine named manual lifting or transfer techniques;**
- Published professional opinion in ‘The Guide to the Handling of Patients (4th Edition)’ (NBPA, 1998) and ‘Safe Handling in the Community’ (Back care, 1999);**
- Assessments using ergonomic/ biomechanic assessment tools in ‘The Guide to the Handling of People (5th Edition)’ (Smith, 2005).**



Figure 2.6 Underarm or 'drag' lift: this can damage the patient's shoulders and the nurses' backs



(a)



(b)

Figure 2.7 'Cradle' or 'orthodox' lift: (a) the patient's head and neck are unsupported; (b) the nurses are carrying the weight on their hands and wrists



Figure 2.8 'Australian' or shoulder lift: this can damage the patient's chest wall and the nurses' backs

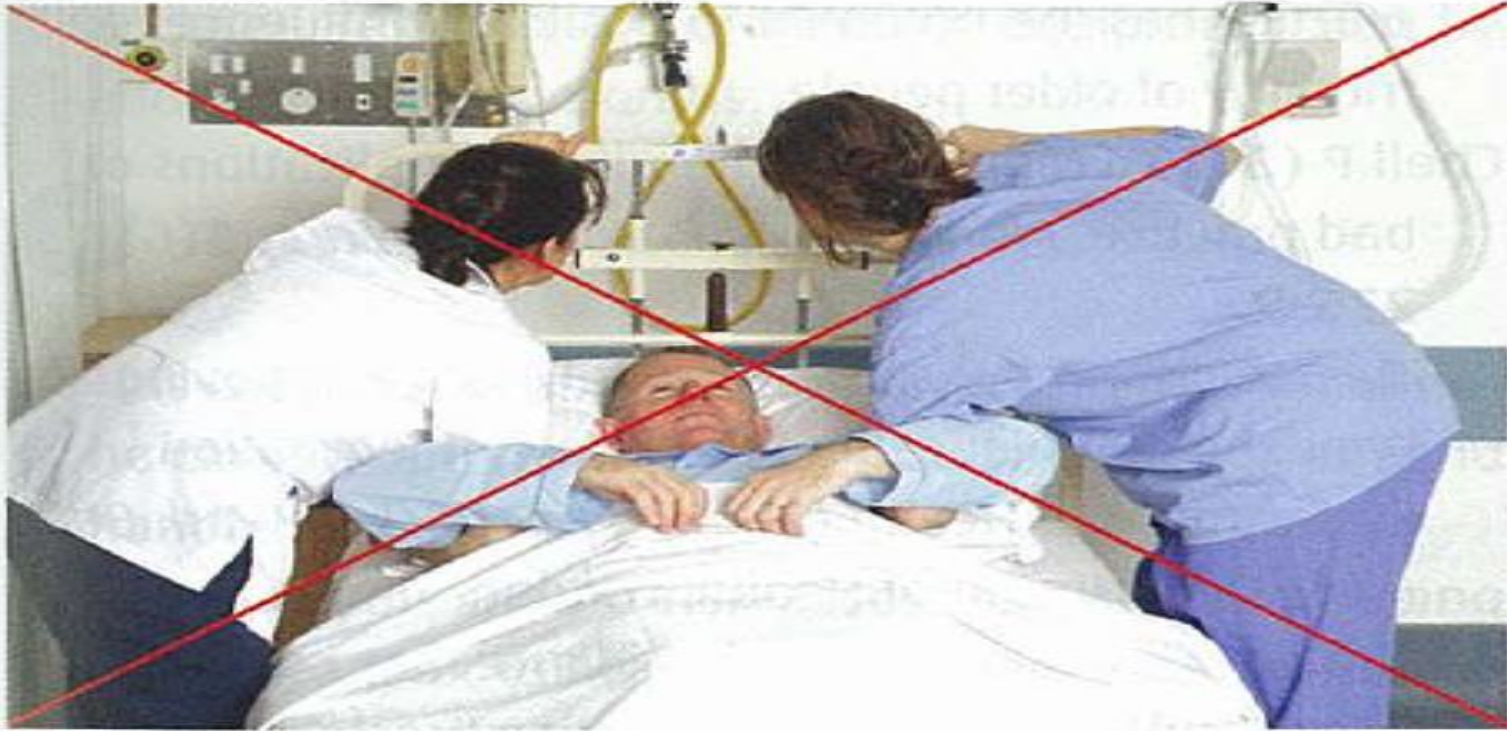


Figure 2.9 Through-arm lift: this can damage the patient's underarms and the nurses' backs



Figure 2.10 Three-person lift: the patient could fall, or if a nurse stumbles, uneven loads would be transferred

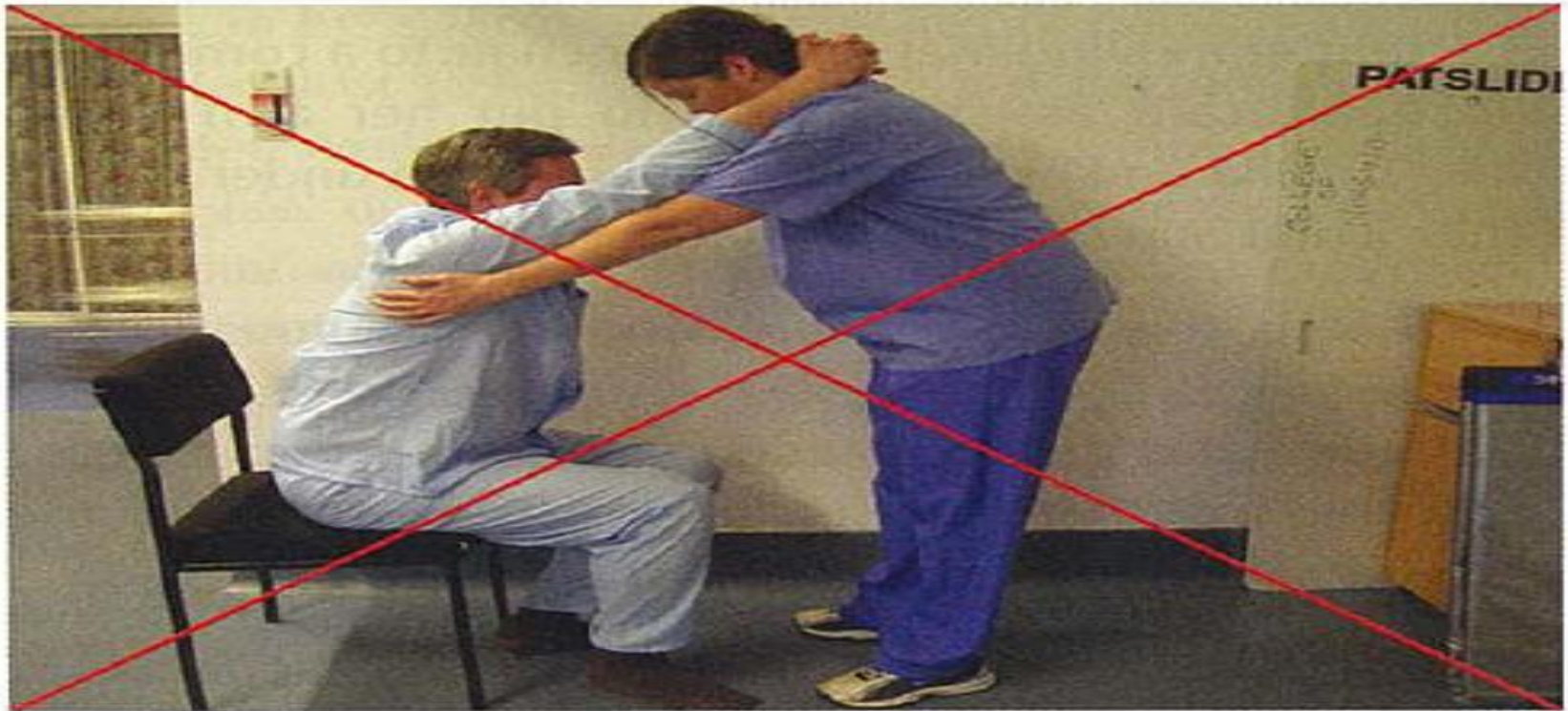


Figure 2.12 Front assisted transfer: this could damage the nurses' neck or either person could fall

Moving and Handling Study

Aim and Findings



Aim

The aim of this study was to survey the patient moving and handling experiences of pre-registered student nurses and assess episodes of self-reported back pain experienced during their exposure to clinical practice. .

Study Sample : 230

Response rate : 89%

**Study design : Cross sectional
descriptive study**

Table 1 Number of student nurses experiencing episodes of back pain during their clinical practicum placement. Ratios between groups were compared using Chi-squared analysis.

	Reporting of pain during clinical placement				
	Pain (n=119)		No Pain (n=74)		p-value
	No.	%	No.	%	
Sex					
Male	10	41.7	14	58.3	0.043
Female	109	64.5	60	35.5	
Year of study					
2 nd	18	23.1	60	76.9	<0.001
3 rd	46	88.5	6	11.5	
4 th	55	87.3	8	12.7	
Have you ever been asked to physically lift / move a patient without equipment?					
Yes	81	87.1	12	12.9	<0.001
No	33	35.9	59	64.1	
Was equipment available?					
Yes	32	59.3	22	40.7	0.013
No	60	71.4	24	28.6	
Unsure	24	46.2	28	53.8	

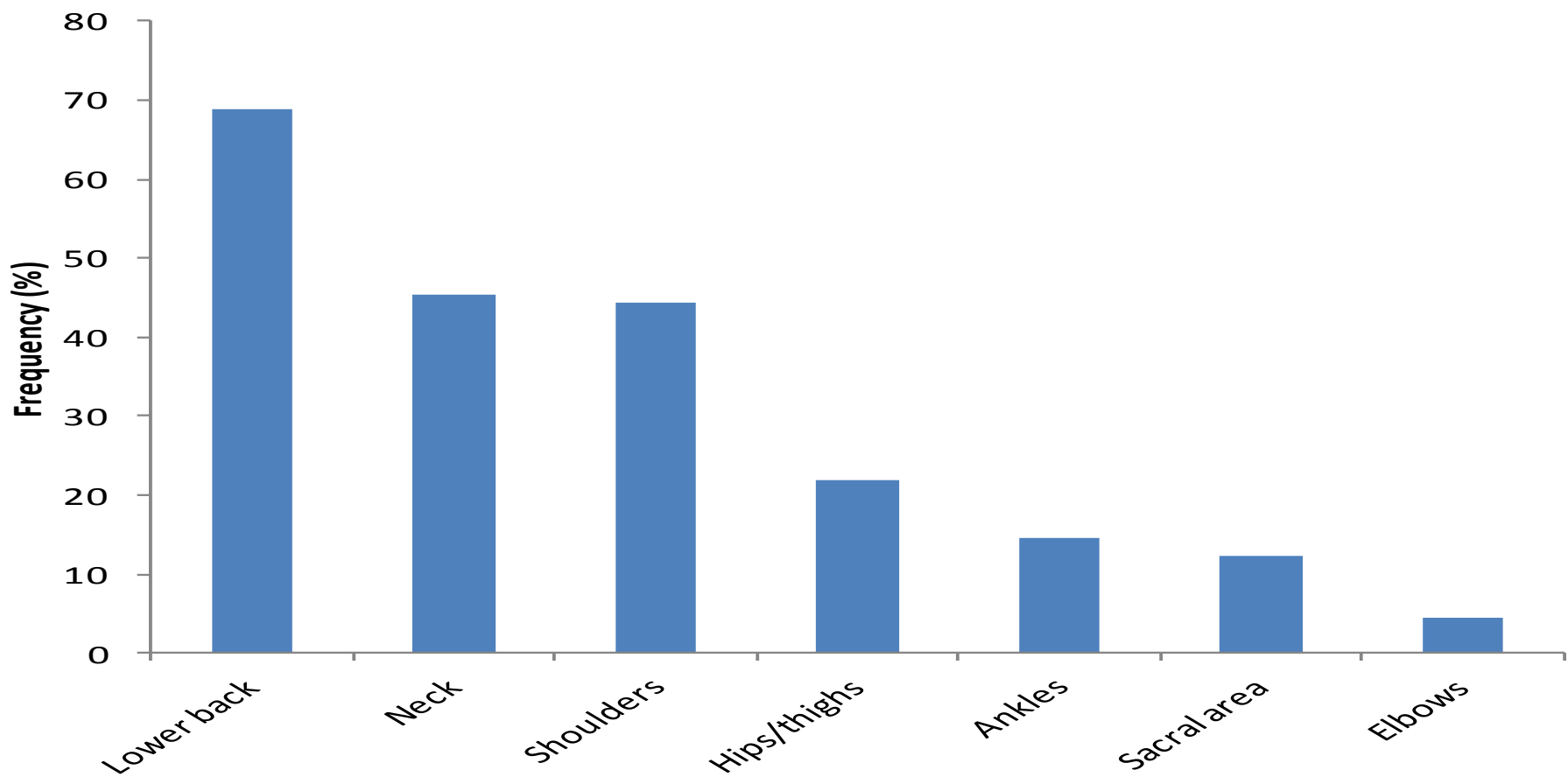
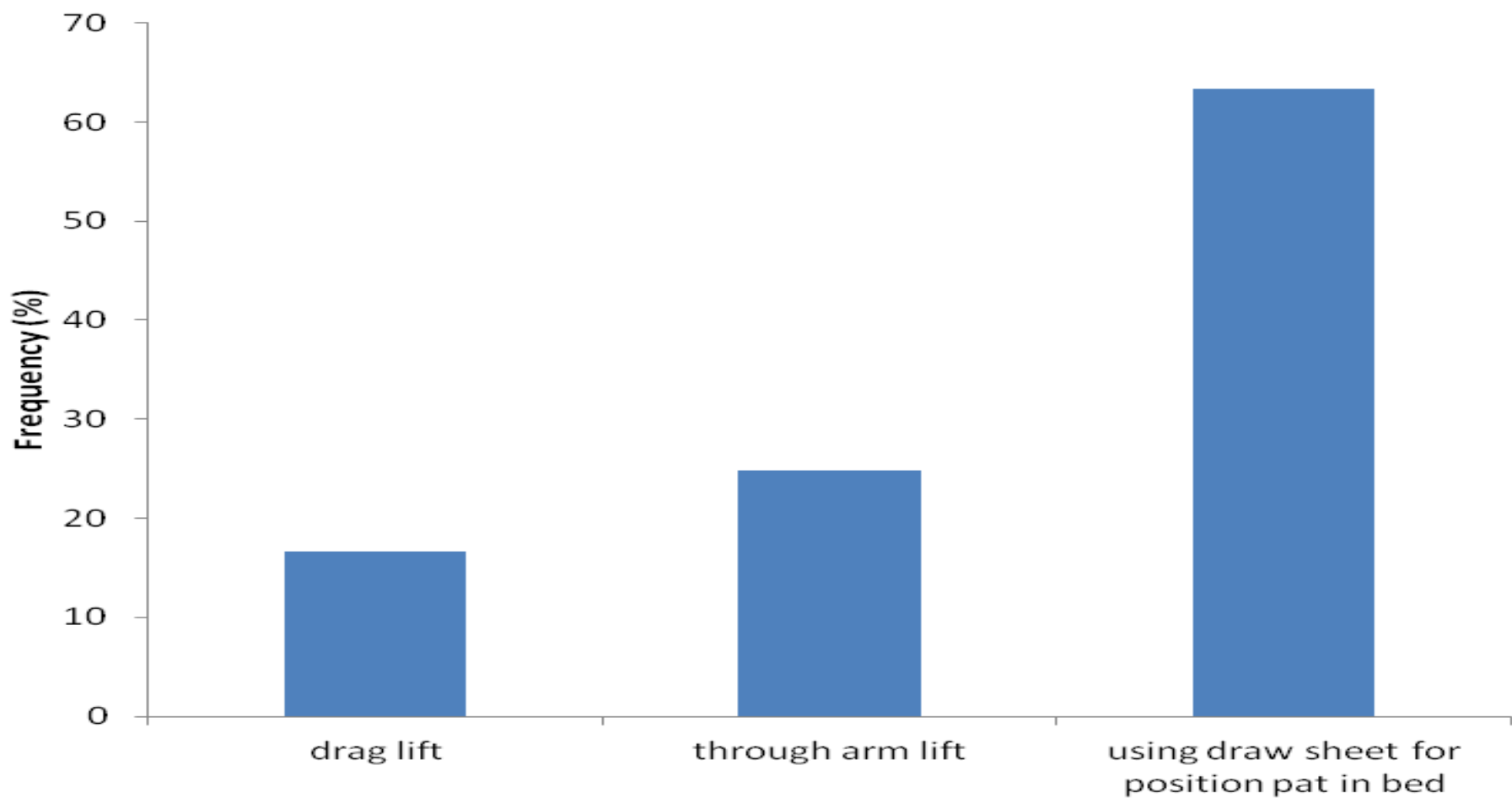


Figure 2: Site of musculoskeletal pain experienced by participants whilst working in clinic experience. Percentage of participants who reported pain while in the clinical practice as part of their nursing training.

Figure 3: Frequency of reported usage of un-safe techniques for patient transfer used in the clinical practice of student nurses.



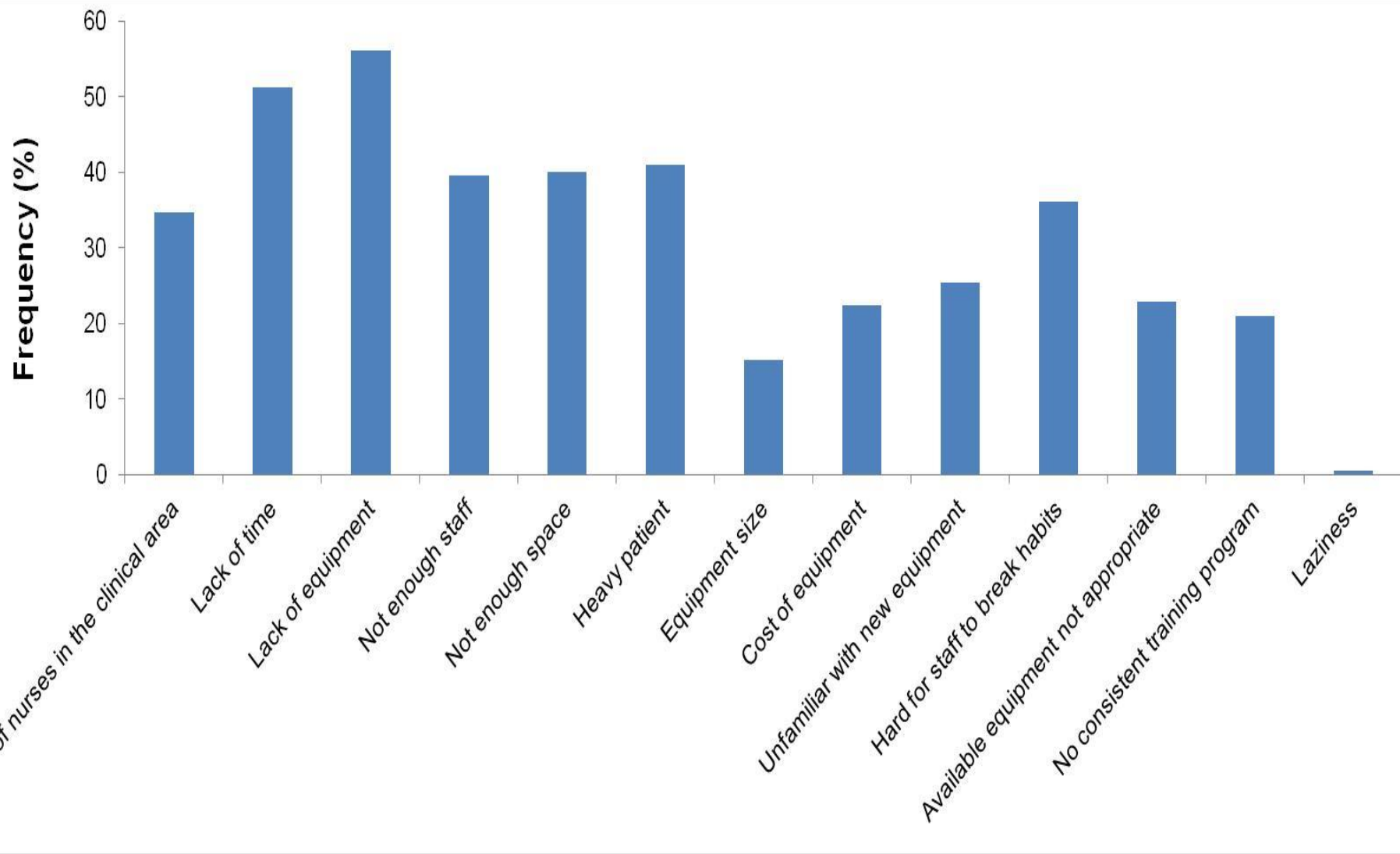


Figure 4: Frequency of reasons considered by participants to be the main barriers to addressing safe patient handling in the hospital facilities they were exposed to.



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Responsibility

Reduction of musculoskeletal injuries lies within our hands.



Nursing strategic plan

A comprehensive approach

Nursing leadership

Nursing education

Nursing services

Nursing regulations





Recommendations: What should we do?

- 1. Review organizational and educational policies and procedures. Written safe patient handling policy/No lift.**
- 2. Health Care Protocols on Risk Assessment and Prevention of back pain .**
- 3. Make the right choice and standardize the risk assessment and assess whether all areas of risk are addressed within the care plan.**
- 4. Implement educational programmes in the clinical areas for specialized training of safe moving and handling patient /objects that are structured, organized, comprehensive, and directed at all levels of nurses, health care providers and consider time for Staff to attend In-Services.**

Recommendations: What should we do?

- 5. Review equipment in place to ensure the product type has demonstrated effectiveness in reducing an individual's risks.**
- 6. Collaboration of nurses in implementing a safe moving and handling training programme in the clinical area**
- 7. Regular monitoring and evaluation of the intervention.**
- 8. Provide adequate staffing. Staffing level/ratio to patient**
- 9. Rewards and recognition to nursing for achieving goal.**

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